

AMENDMENTS TO THE CLAIMS

Please cancel Claims 16-20 and amend Claims 1, 5-7, and 10-11 as follows:

1. (Currently Amended) A method for performing echo cancellation within a switching center of a communication network, said switching center being coupled to a plurality of local user devices and a plurality of external transmission media, said method comprising the steps of:

5 providing a pool of echo cancellation units within said switching center;
coupling a first local user device to a first external transmission medium as part of a communication connection between the first local user device and a remote user device;
monitoring the first external transmission medium for at least one of echo cancellation activity and echo energy during the communication connection between the first local user device and the remote user device;

10 determining whether when intolerable the detected at least one of echo cancellation activity and echo energy is above a determined threshold, is being received from said first external transmission medium during said communication connection; and

15 allocating a first echo cancellation unit from the pool of echo cancellation units to the communication connection when intolerable echo energy is detected in said determining step; and

when the detected at least one of echo cancellation activity and echo energy thereafter falls below the determined threshold, discontinuing the allocation of the first echo cancellation unit to the communication connection.

2. (Original) The method claimed in Claim 1, wherein:

said first external transmission medium includes a trunk.

3. (Original) The method claimed in Claim 2, wherein:
said first local user device includes a telephone unit connected to said switching center via a local loop.
4. (Original) The method claimed in Claim 3, wherein:
said step of coupling includes providing a communication path between said telephone unit and said trunk.
5. (Currently Amended) The method claimed in Claim 1, wherein:
said step of determining monitoring includes receiving a signal from said first local user device indicating that echoes are being audibly perceived by a user thereof.
6. (Currently Amended) The method claimed in Claim 1, wherein:
the at least one of echo cancellation activity and echo energy is echo energy and said step of monitoring includes allocating a call classifier to said communication connection and receiving an indication from said call classifier that echoes above a predetermined power level are being received from said first external transmission medium.
7. (Currently Amended) The method claimed in Claim 1, wherein:
the at least one of echo cancellation activity and echo energy is echo cancellation activity and said step of determining monitoring includes assigning an echo cancellation unit to said communication connection and receiving an indication from said echo cancellation unit that echoes above a predetermined power level are being received from said first external transmission medium; and
said step of allocating includes allowing said echo cancellation unit to continue performing echo cancellation for said communication connection for the duration thereof.

8. (Original) The method claimed in Claim 1, wherein:
said pool of echo cancellation units includes at least one multi-channel hardware echo cancellation device.

9. (Original) The method claimed in Claim 1, wherein:
said pool of echo cancellation units includes a programmable digital processing device.

10. (Currently Amended) The method Claimed in Claim [[1]]⁵6, further comprising the step of:

~~releasing said first echo cancellation unit back to said pool when said communication connection has ended when the detected at least one of echo cancellation activity and echo energy fails to exceed the determined threshold within a predetermined time interval after allocating the call classifier, the call classifier terminates the monitoring step.~~

11. (Currently Amended) A switching center for use within a communication network, comprising:

a plurality of first ports for use in coupling the switching center to a plurality of local user devices;

5 a plurality of second ports for use in coupling the switching center to a plurality of external transmission media, each of said plurality of external transmission media being coupled at an opposite end to another switching center within the communication network;

10 a switch for selectively coupling individual first ports to individual second ports within the switching center for use in establishing communication connections between local user devices and remote user devices in the communication network;

a pool of echo cancellation units that are each capable of reducing echoes received by said switching center from an external transmission medium; and

an allocation unit for allocating an echo cancellation unit from said pool of echo cancellation units to a communication connection being supported by the switching center
15 in response to detection of intolerable echo energy above a threshold level from an external transmission medium associated with said communication connection and terminating allocation of the echo cancellation unit to the communication connection in response to detection of echo energy below the threshold level.

12. (Original) The switching center of Claim 11, wherein:
said plurality of external transmission media include a plurality of trunks.

13. (Original) The switching center of Claim 11, wherein:
said communication network includes a conventional telephony network.

14. (Original) The switching center of Claim 11, wherein:
said pool of echo cancellation units includes a plurality of individual hardware units.

15. (Original) The switching center of Claim 11, wherein:
said allocation unit includes at least one call classifier for detecting echoes associated with a communication connection.

16-20. (Canceled)

Please add the following new Claims 21-31:

21. (New) A method for performing echo cancellation within a switching center of a communication network, said switching center being coupled to a plurality of local user devices and a plurality of external transmission media, said method comprising the steps of:
providing at least one echo cancellation unit within said switching center;

5 coupling a first local user device to a first external transmission medium as part of
a communication connection between the first local user device and a remote user device;
 performing echo cancellation with the at least one echo cancellation unit on the
communication connection;
 thereafter monitoring the first external transmission medium for at least one of echo
10 cancellation activity and echo energy; and
 when the detected at least one of echo cancellation activity and echo energy thereafter
falls below the determined threshold, discontinuing echo cancellation of signals on the first
external transmission medium.

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22. (New) The method of Claim 21, further comprising:
 when the at least one of echo cancellation activity and echo energy is above a
determined threshold, the allocating step is performed.

23. (New) The method claimed in Claim 21, wherein the at least one echo
cancellation unit is a pool of echo cancellation units and further comprising:
 allocating a first echo cancellation unit from the pool to the communication
connection.

24. (New) The method claimed in Claim 23, wherein:
 said first local user device includes a telephone unit connected to said switching
center via a local loop; and
 said first external transmission medium includes a trunk.

25. (New) The method claimed in Claim 24, wherein:
 said step of coupling includes providing a communication path between said
telephone unit and said trunk.

26. (New) The method claimed in Claim 23, wherein said allocating step is performed in response to the receipt of a signal from said first local user device indicating that echoes are being audibly perceived by a user thereof.

27. (New) The method claimed in Claim 21, wherein:
the at least one of echo cancellation activity and echo energy and said step of monitoring includes allocating a call classifier to said communication connection and receiving an indication from said call classifier that echoes above a predetermined power level are being received from said first external transmission medium.

28. (New) The method claimed in Claim 21, wherein:
the at least one of echo cancellation activity and echo energy is echo cancellation activity and said step of monitoring includes receiving an indication from said at least one echo cancellation unit that echoes above a predetermined power level are being received from said first external transmission medium.

29. (New) The method claimed in Claim 28, wherein:
said pool of echo cancellation units includes at least one multi-channel hardware echo cancellation device ; and
said step of allocating includes allowing said at least one echo cancellation unit to continue performing echo cancellation for said communication connection for the duration thereof.

30. (New) The method claimed in Claim 23, wherein:
said pool of echo cancellation units includes a programmable digital processing device.

31. (New) The method claimed in Claim 27, when the detected at least one of echo cancellation activity and echo energy fails to exceed the determined threshold within a predetermined time interval after allocating the call classifier, the call classifier terminates the monitoring step.
